

**ABSTRACT OF THE DISCLOSURE**

A hardware configuration, a general packet radio services support node (GSN) and method for implementing general packet radio services over a global system for mobile communications network is provided. The hardware configuration comprises a plurality of electronic boards which provide the GPRS functionality. An internal bus, preferably CPCI, provides intra-configuration communications while a ATM bus provides communications to an external circuit. The GSN comprises a single board computer for providing general packet radio services functionality which is required for each call being serviced and a line card processor for providing general packet radio services functionality which is required for each packet being serviced. The GSN may function as a SGSN, GGSN or both.